

FIG. 1

1	accagcgcaacttcggcagcggcagcacctcggcagcacctcagcagcaacatgcccagca	60
1	tggtcgcgtgaagccgctcgccgctcgtggagccgctcgtggagtcgtcgttgtagcgggtcgt	
	M P S K	
61	agaagaatggaagaagcggaccccaaccacataaaaagggtgggtgttcacgctgaataatc	120
1	tcttcttaccttcttcgcctgggggttggtgtatcttccaccacaagtgcgacttattag	
	K N G R S G P Q P H K R W V F T L N N P	
121	cttccgaagacgagcgcgaagaaaatacgggagctcccaatctccctatttgattatttta	180
1	gaaggcttctgctcgcgttcttttatgccctcgagggttagaggataaactaataaaat	
	S E D E R K K I R E L P I S L F D Y F I	
181	ttgttggcggaggagggtaatgaggaaggacgaacacctcacctccaggggttcgctaatt	240
1	aacaaccgctcctccattactccttctgcttggtgagtgagggtccccaagcgattaa	
	V G E E G N E E G R T P H L Q G F A N F	
241	ttgtgaagaagcaaacttttaataaagtgaagtgggtatttgggtgcccgtgccacatcg	300
1	aacacttcttcgtttgaaaattatttccacttcaccataaaccacgggacggtgtagc	
	V K K Q T F N K V K W Y L G A R C H I E	
301	agaaagccaaaggaactgatcagcagaataaagaatattgtagtaaagaaggcaacttac	360
1	tctttcgggtttccttgactagtcgtcttatttcttataacatcatttcttccgttgaatg	
2	K A K G T D Q Q N K E Y C S K E G N L L	
	*	
361	ttattgaatgtggagctcctcgatctcaaggacaacggagtgacctgtctactgctgtga	420
1	aataacttacacctcgaggagctagagttcctggtgcctcactggacagatgacgacact	
2	I E C G A P R S Q G Q R S D L S T A V S	
3	K N F T S S R S R L S L P T V Q R S S H	
	* P C R L S R D V A T	
421	gtaccttgttggagagcgggagtcctggtgaccgttgacagagcagcacctgtaacgtttg	480
1	catggaacaacctctcgccctcagaccactggcaacgtctcgtcgtgggacattgcaaac	
2	T L L E S G S L V T V A E Q H P V T F V	
3	T G Q Q L A P T Q H G N C L L V R Y R K	
	L V K N S L P L R T V T A S C C G T V N	
481	tcagaaatttccgcgggctggctgaacttttgaaagtgagcgggaaaatgcagaagcgtg	540
1	agtctttaaaggcgcccgaccgacttgaaaactttcactcgcccttttacgtcttcgcac	
2	R N F R G L A E L L K V S G K M Q K R D	
3	D S I E A P Q S F K Q F H A P F H L L T	
	T L F K R P S A S S K F T L P F I C F R	
541	attggaagaccaatgtacacgtcattgtggggccacctgggtgtggtaaaagcaaattggg	600
4	taaccttctggttacatgtgcagtaacacccccgggtggacccacaccattttcgtttacc	
1	M Y T S L W G H L G V V K A N G	
2	W K T N V H V I V G P P G C G K S K W A	
3	I P L G I Y V D N H P W R P T T F A F P	
	S Q F V L T C T M	
601	ctgctaattttgcagacccggaaaccacatactggaaaccacctagaaacaagtgggtggg	660
4	gacgattaaaacgtctgggccttttggtgtatgacctttggtggatctttgttcaccaccc	
1	L L I L Q T R K P H T G N H L E T S G G	
2	A N F A D P E T T Y W K P P R N K W W D	
	S S I K C V R F G C V P F W R S V L P P	

FIG. 2A

Sequence 1960260

661	atggttaccatggtgaagaagtgggtgttattgatgacttttatggctggctgccgtggg	720
	taccaatggtaccacttcttcaccaacaataactactgaaaataccgaccgacggcaccc	
4	M V T M V K K W L L L M T F M A G C R G	
1	G Y H G E E V V V I D D F Y G W L P W D	
2	I T V M	
721	atgatctactgagactgtgtgatcgatatccattgactgtagagactaaagggtggaactg	780
	tactagatgactctgacacactagctataggtaactgacatctctgatttccaccttgac	
4	M I Y *	
1	D L L R L C D R Y P L T V E T K G G T V	
781	taccttttttggcccgagcagttattctgattaccagcaatcagaccccggttggaatgggtact	840
	atggaaaaaacggggtcataagactaatggtcgtagtctggggcaaccttaccatga	
1	P F L A R S I L I T S N Q T P L E W Y S	
841	cctcaactgctgtcccagctgtagaagctctctatcgaggattacttccttggtatttt	900
	ggagttgacgacagggtcgacatcttcgagagatagcctcctaataaggaaccataaaa	
1	S T A V P A V E A L Y R R I T S L V F W	
901	ggaagaatgctacaaaacaatccacggaggaagggggccagttcggtcaccctttccccc	960
	ccttcttacgatgttttgttaggtgcctccttcccccggtcaagcagtgaggaaagggggg	
1	K N A T K Q S T E E G G Q F V T L S P P	
961	catgccctgaatttccatatgaaataaattactgagtcttttttatcacttcgtaatggt	1020
	gtacgggacttaaagggtatacttttatttaatgactcagaaaaaatagtgaagcattacca	
5		M V
1	C P E F P Y E I N Y *	
1021	ttttattattcatttaggggttcaagtggggggtctttaagattaaattctctgaattgta	1080
	aaaataataagtaaatcccaagttcacccccagaaattctaatttaagagacttaacat	
5	F I I H L G F K W G V F K I K F S E L Y	
6	* P E L P P D K L N F E R F Q	
1081	catacatggttacacggatattgtagtcctgggtcgtattttactgttttcgaacgcagtg	1140
	gtatgtaccaatgtgcctataacatcaggaccagcataaatgacaaaagcttgcgtcacg	
5	I H G Y T D I V V L V V F T V F E R S A	
6	V Y M T V R I N Y D Q D Y K S N E F A T	
1141	cgaggcctacgtgggtccacatttccagaggtttgtagcctcagccaaagctgattccttt	1200
	gctccggatgcaccaggtgtaaagggtctccaaacatcggagtcgggtttcgactaaggaaa	
5	E A Y V V H I S R G L *	
6	G L G V H D V N G S T Q L R L W L Q N R	
1201	tggtattttggttggaagtaataatagtgaggagcaagaacagggtttgggtgtgaagtaac	1260
	acaataaaccaaccttcattagttatcacctcagttcttgtccaaaccacacttcattg	
6	K N N P Q F Y D I T S D L V P K P T F Y	
1261	gggagtggtaggagaagggttgggggattgtatggcgggaggagtagtttacatatgggt	1320
	ccctcaccatcctcttcccaacccccctaataccgcccctcctcatcaaatagtataccca	
6	R S H Y S F P Q P I T H R S S Y N V Y P	
1321	catagggttagggctgtggcctttgttacaaagttatcatctaaaataacagcagtgaggc	1380
	gtatccaatcccagacaccggaacaatgtttcaatagtagatttttattgtcgtcacctcg	
6	D Y T L A T A K T V F N D D L I V A T S	

FIG. 2B

050961-121093

1381	ccactcccctatcaccctgggtgatgggggagcäaggccagaattcaaccttaacctttc	1440
6	ggtgaggggatagtgaggaccactaccccctcggtccggtcttaagttggaattggaaag	
	G V G R D G Q T I P S C P W F E V K V K	
1441	ttattctgtagtattcaaagggtatagagattttggttggtccccctccccgggggaacaa	1500
6	aataagacatcataagtttcccataatctctaaaacaaccaggggggagggcccccttggt	
	R I R Y Y E F P I S I K N T G G G P P V	
1501	agtcgtcaattttaaattctcatcatgtccaccgcccaggagggcggttggtgactgtggtac	1560
6	tcagcagttaaaatttagagtagtacaggtggcggtcctcccgaacactgacaccatg	
	F D D I K F R M M D V A W S P T T V T T	
1561	gcttgacagtatatccgaagggtgcgggagagggcggtggtgaagatgccatttttccttc	1620
6	cgaactgtcatataggttccacgcccctctccgcccacaacttctacggtaaaaaggaag	
	R K V T Y G F T R S L R T N F I G N K R	
1621	tccaacggtagcggtggcggggggtggacgagccagggggcggcggcgaggatctggccaa	1680
6	aggttgccatcgccaccgccccacctgctcggtccccgcccgcgcctcctagaccggtt	
	R W R Y R H R P H V L W P R R R L I Q G	
1681	gatggctgcggggggcggtgtcttcttctgcggtaacgcctccttggtacgtcatagctg	1740
6	ctaccgacgcccccgccacagaagaagacgccattgcggaggaacctatgcagtatcgac	
	L H S R P R H R R R R Y R R R P Y T M	
1741	aaaacgaaagaagtgcgctgtaagtatt	1800
	ttttgctttcttcacgcgacattcataa	

FIG. 2C











PCV 412 9741 B9	ACCAGGCACTTCGGCAGCGGCAGCACCTCGGCAGG--TCAGT--GAAAATGCCAAGCAAGAA-----AAGCGGCCCGCAACCCCATAGAGAGGTGGGTGTTACCCCTTAATAATC ACC CAGC C C GAATGGAAG A C A A A G G ACC CAGC C C GAATGGAAG A C A A A G G ACC CAAC C C GAATGGAAG A C A A A G G
PCV 412 9741 B9	CTTCCGAGGAGAGAAAAACAATAACGGGAGCTTCCTCAATCTCCCTTTTGGATTATTTTGGCGGAGAGGAAGGTTTGGAGAGGGTAGAACTCCTCACCTCCAGGGGTTTCGGAATT A C CGC G C A GTT C G AAT G A AC A C T A CA CGC G C A GTT C G AAT G A AC A C T A CA CGC G C A GTT C G AAT G A AC A C T
PCV 412 9741 B9	TTGCTAAGAAGCAGACTTTTAAACAAGGTGAAGTGGTATTTTGGTCCCGCTGCCACATCGAGAGAAAGCGAAAGCAACCGACGACGAGCAATAAAGATACTGCAGTAAAGAGGCCACATAC TG A A T A G C T T T T T T T T T T T T T T A T A T A T TG A A T A G C T T T T T T T T T T T T T T A T A T MISSING
PCV 412 9741 B9	TTATCGAGTGTGGAGCTCCGCGGAACCGGGAAGCGCAGCGACCTGTCTACTGCTGTGAGTACCTTTTGGAGACGGGGTCTTTTGGTGACTGTAGCCGAGCAGTTCCCTGTAACTGATG T A T ATCT A AC A G T G GC AT C C T AA CA T T A T ATCT A AC A G T G GC AT C C T AA CA T MISSING
PCV 412 9741 B9	TGAGAAATTTCCGCGGGCTGGCTGAACITTTTGAAAGTGAGCGGGAAGATGCAGCAGCGTGTATTGGAAAGACAGCTGTACACGTATAGTGGGCCCCCGGTTGTGGGAAGAGCCAGTGGG C A A AA A CAA T T G A T G T A A A A C A A AA A CAA T T G A T G T A A A A C A A AA A CAA T T G A T G T A A A A
PCV 412 9741 B9	CCCCGTAATTTTGCTGAGCCCTAGGACACCTACTGGAAGCCCTAGTAAATAAGTGGTGGGATGGATATCATGGAGAGAAGTGTGTTGTTTGGATGATTTTATGGCTGTTACCTTGGG TGC AA C GGAAC A ACC A C T C T A G A T C C G G TGC AA C GGAAC A ACC A C T C T A G A T C C G G TGC AA C GGAAC A ACC A C T C T A G A T C C G G
PCV 412 9741 B9	ATGATCTACTGAGACTGTGTGACCCGGTATCCATTGACTGTAGAGACTAAAGGGGGTACTGTTCCCTTTTGGCCCCGCACTATTTTGATTACCAAGCAATCAGGCCCCCCCAGGAATGGTACT T A T A A A C GTT T A T A A A GTT T A T A A A GTT
PCV 412 9741 B9	CCTCAACTGCTGTCCAGCTGTAGAAAGCTCTCTATCCGAGGATTACTACTTTTGCAATTTTGGAAAGACTGCTGGAGAACAAATCCACGGAGGTACCCGAAGCCGATTTGAAGCAGTGGACC T C GT A AC A A --- GG AG C TCA CC TTC T C GT A AC A --- GG AG TCA CC TTC T C GT A T AC A --- GG AG TCA CC TTC
PCV 412 9741 B9	CACCCGTGCCCCCTTTTCCCATATAAATAAATAAATTACTGAGTCTTTTGTATTATCACAATCGTAATGGTTTATT-TTTATTTA---TTTA---GAGGTCITTTTAGGATAAATTCCTCTGA C A CC TGAA T G T T GGG C AGTG G A AT C A CC TGAA T G T T GGG AGTG G A AT C A CC TGAA T G T T GGG AGTG G A AT

FIG. 4A

PCV 412 9741 B9 ATTGTACATAAATAGTCAGCCCTTACCACATAAATTTGGGCTGTGGCTGCA-TTTTGGAGCGCATAGCCGAGCCCTGTGTGCTTCGACATTTGGTGTGGGTATTTAAATGGAGCCACAGCTGG  
C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TCCAGA T G GCCTC A A  
C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TCCAGA T G GCCTC A A  
C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TC AGA T G GCCTC A A

PCV 412 9741 B9 TTTCTTTTATTATTGGGTGGAACCAATCAATGTGTTGGTCCAGCTCAGGTTTGGGGTGAAGTACCTGGAGTGGTAGGTAAGGGCTGCCCTTATGGTGTGGCGGAGGAGTAGTTAATA  
C G T T GT A GGA A AA T T A G AG T GGGG T A T C  
C G T T GT A GGA A AA T T A G AG T GGGG T A T C  
C G T T GT A GGA A AA T T A G AG T GGGG T A T C

PCV 412 9741 B9 TAGGGTTCATAGGCCCAAGTTGGTGGAGGGGGTTACAAAGTTGGCATCCAAAGATAACAACAGTGGACCCAAACACCTCTTTGATTAGAGGTGATGGGGTCTCTGGGGTAAATTCATATTTA  
TT G GCT TT G GCT CCCTT AT T A G G C T C A C CCCTG GAG AA CC G ACC  
TT G GCT CCCTT AT T A G G C T C A C CCCTG GAG A CC G ACC  
TT G GCT CCCTT AT T GA G G C T C A C CCCTG GAG A CC G ACC

PCV 412 9741 B9 GCCTTTCTAATACGGTAGTATTGGAAGGTAGGGGTAGGGGTTGGTCCCGCCTGAGGGGGGAGGAACGTGGCCGATGTTGAATTTGAGGTAGTTAACATTCCAAGATGGC--TCCGAGT  
T T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C  
T T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C  
T T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C

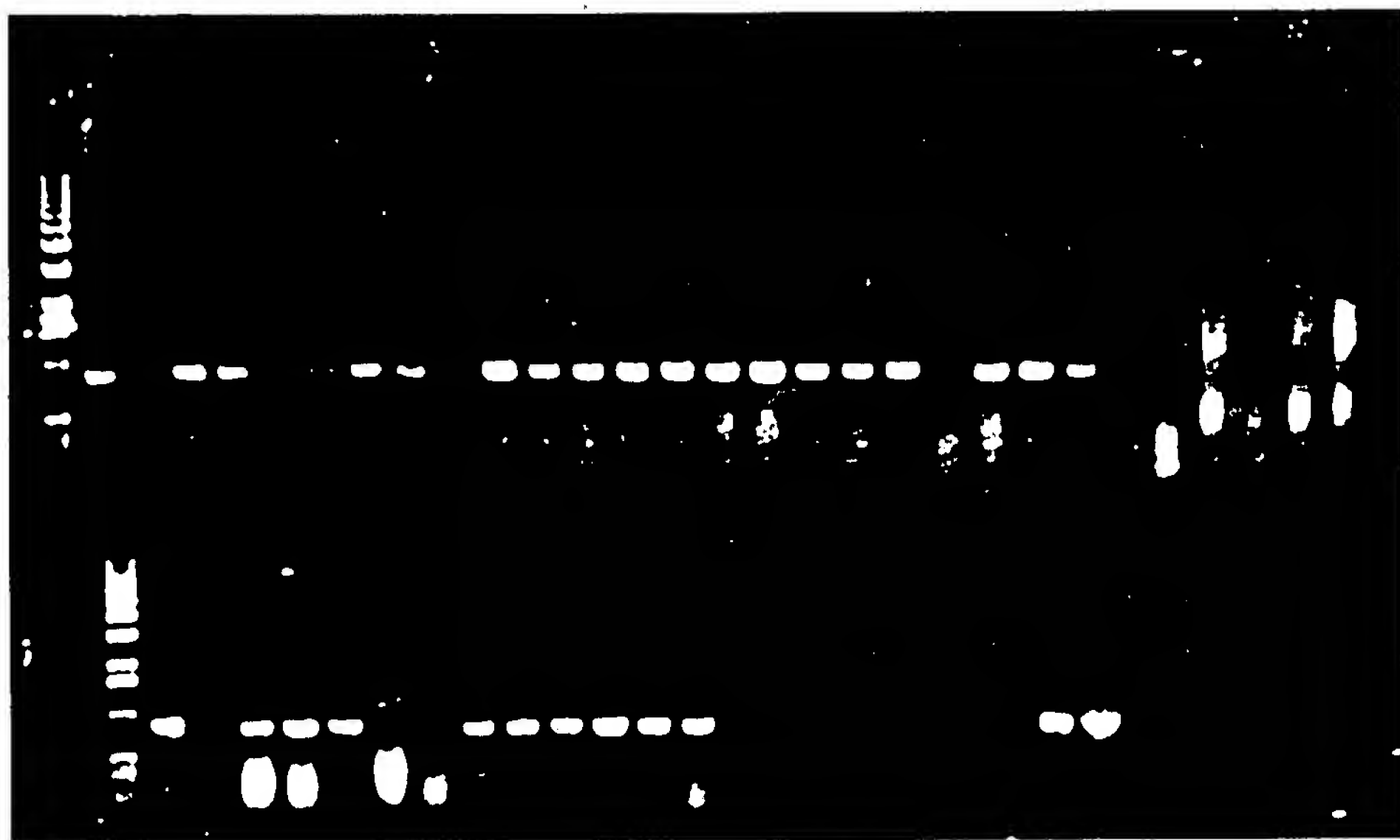
PCV 412 9741 B9 ATCCTCCTTTT-ATGGTGAGTACAAATCTGTAGAAAGCGGGAATTGAAGATACCCGCTCTTTTCGGCCCATCTGTAAACGGTTTCTGAAGCGCGGG-TGTGCCAAATATGGTCTTCTCCG  
G GG A GC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ----- G GA G GCC G G GG GG  
G GG A GC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ----- G GA G GCC G G GG GG  
G GG AGC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ----- G GA G GCC G G GG GG

PCV 412 9741 B9 GAGGATGTTTCCAAAGATGGCTGCGGGGGGGTCCCTTCTGCGGTAACGCCCTCCTTGGCCACGTCATCCTATAAAAGTGAAAGAGTGCGCTGCTGTA-GTATT  
C GG TGT AT AGCTG C- --- A  
C GG TGT AT AGCTG C- --- A  
C GG TGT AT AGCTG C- --- A

FIG. 4B

**FIG. 5**

09200991-121098



*FIG. 6*